

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TAKAHISA UEDA

Appeal No. 1998-2359
Application 08/581,050

HEARD: APRIL 18, 2000

MAILED

MAY 26 2000

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before COHEN, FRANKFORT and NASE, Administrative Patent Judges.
COHEN, Administrative Patent Judge.

DECISION ON APPEAL

This appeal is taken from the final rejection of claim 2. Claims 1, 3 through 11, 13, 14, and 16 through 29, the only other claims remaining in the application, stand withdrawn from consideration pursuant to 37 CFR 1.142(b).

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Appellant's invention relates to a packing, and a basic understanding thereof can be derived from a reading of claim 2, a copy of which appears in the APPENDIX to the brief (Paper No. 19).

As evidence of obviousness, the examiner has applied the documents listed below:

Schnitzler	4,190,257	Feb. 26, 1980
Ogino et al (Ogino)	4,455,334	Jun. 19, 1984
Case et al (Case)	4,559,862	Dec. 24, 1985
Ueda et al (Ueda)	5,134,030 (effective filing date Jun. 15, 1988)	Jul. 28, 1992

The examiner's rejections, denoted as I and II, appear below.

I. Claim 2 stands rejected under 35 U.S.C. § 103 as being unpatentable over Ueda in view of Ogino.

II. Claim 2 further stands rejected under 35 U.S.C. § 103 as being unpatentable over Case in view of Schnitzler.

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The rejections and response to the argument advanced by appellant can be found in the answer (Paper No. 20), while appellant's argument appears in the main (pages 4 through 7) and reply briefs (Paper Nos. 19 and 21).

OPINION

In reaching our conclusion on the obviousness issues raised in this appeal, we have carefully considered appellant's specification and claim 2, the applied patents,¹ and the viewpoints of appellant and the examiner, respectively. As a consequence of our review, we make the determinations which follow.

Claim 2 is drawn to a packing comprising, inter alia, a plurality of internally reinforced braiding yarns being braided together, wherein each braiding yarn includes a plurality of

¹ In evaluating the applied patents, we have considered all of the disclosure of each document for what it would have fairly taught one of ordinary skill in the art. See In re Boe, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966). Additionally, this panel of the board has taken into account not only the specific teachings, but also the inferences which one skilled in the art would reasonably have been expected to draw from the disclosure. See In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

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longitudinally arranged reinforcing fiber yarns held together by expanded graphite integrally bonded to the fiber yarns with adhesive.

Rejection I

We affirm the rejection of claim 2 under 35 U.S.C. § 103 as being unpatentable over Ueda in view of Ogino.

In applying the test for obviousness,² we make the determination that the combined teachings of Ueda and Ogino would have been suggestive of the claimed packing. More particularly, it is our opinion that it would have been obvious to one having ordinary skill in the art to modify the braided packing of Ueda (Figs. 7 and 8) by including therein known features in the art as exemplified by the Ogino disclosure (column 3, lines 59 to column 4, line 3 and column 4, lines 25 through 32), i.e., including a plurality of reinforcing fibers 2 in each of the braiding yarns

² The test for obviousness is what the combined teachings of references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

(Fig. 7) of Ueda and by including adhesive between the graphite sheets 1 of the laminate; the graphite sheets being made of expanded graphite, a graphite material commonly used in the packing art.³ As we see it, the incentive on the part of one having ordinary skill in this art for making the proposed modifications would have simply been to apply clearly known alternatives to the packing of Ueda to achieve the expected advantages thereof.

The arguments advanced by appellant do not convince us of the patentability of claim 2, as follows.

In the main brief (page 5), appellant asserts that the fiber 4 according to the present invention is not the same as the fiber 4" of Ueda. We agree, but simply note that a rejection based upon obviousness, and not anticipation, is before us. For reasons articulated, supra, we additionally do not share the view of appellant (main brief, page 5) that Ogino lacks the teaching needed to "reform" the fiber (knitting thread) 4" of Ueda. Like

³ It is noted that the "Background of the Invention" section of appellant's specification (pages 1 through 3) reveals that expanded graphite is a well known packing material, and discusses a string or braided packing of expanded graphite.

appellant (main brief, pages 5 and 6), we appreciate differences between the respective teachings of Ueda and Ogino, but nevertheless, unlike appellant, we perceived what appellant labels a "common link" therebetween, as earlier explained. From our perspective, the circumstance that Ogino subsequently effects a molded packing does not detract from its explicit teaching (column 4, lines 25 through 28) of the basic knowledge in the art of unifying a composite or laminate with the use of a suitable adhesive as an alternative to unifying by pressing contact. Thus, the application of adhesive is reasonably perceived as a known alternative expedient to unify components of a packing.

Notwithstanding appellant's argument to the contrary (main brief, page 6), as can readily be discerned from the Ueda teaching, for example the showing in Fig. 7, each braiding yarn is "internally reinforced" (as now claimed) by the reinforcing fiber 2 being laminated between graphite sheets. It follows that we are not in accord with the conclusion of appellant (main brief, page 6) that "internal reinforcement" is a hindsight assessment since, as explained above, the Ueda document would have clearly been suggestive of "internally reinforced braiding yarns."

In the reply brief (page 2), the point is made that the passage in column 4, lines 25 through 28 of Ogino refers to the Fig. 2 embodiment (net-like structure 2), not the Fig. 6 embodiment (threads 9). The referenced passage refers to "the embodiments above-mentioned" and "the net-like structure 2." Appellant appears to read this passage, in the context of all embodiments in the Ogino document, as if the patentee had expressly instructed and warned those skilled in the art not to apply adhesive to the embodiment of Fig. 6. However, such is clearly not the case. In our view, the overall teaching of Ogino would have been simply and fairly understood by one versed in the art as being informative of the known expedient of adhesive as an alternative to unifying composites or laminates by pressing alone. See In re Boe and In re Prada, supra.

Rejection II

We affirm the examiner's further rejection of claim 2 under 35 U.S.C. § 103 as being unpatentable over Case in view of Schnitzler.

Appellant asserts (main brief, page 7) that the Schnitzler teaching of a mold packing cannot provide the structure of Case with the necessary conformity so that the fibers 18, 19 and strands 17 thereof are like the fibers and yarns of claim 2, ostensibly, without relying upon appellant's disclosure. In effect, the argument disputes that the references alone would have been suggestive of the claimed invention. We disagree.

The Case and Schnitzler documents are viewed as a whole in understanding the knowledge in the art derived therefrom. As such, we perceive that one having ordinary skill in the art would have found it obvious to select expanded graphite as the specified graphite to be used in conjunction with a binder in the packing of Case (Fig. 1; column 6, lines 55 through 68). Clearly, the incentive on the part of one having ordinary skill in the art for relying upon expanded graphite would have simply been to gain the art recognized advantage thereof; this particular material being well known for packings, as represented by the Schnitzler disclosure (column 1, lines 59 through 65, packing ring formed from corrugated ribbon or tape of flexible graphite exhibiting limited amount of lateral flow when compressed; column 1, lines 29 through 53, packing rings of

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compressed particles of flexible graphite). It is particularly worthy of noting that Schnitzler also expressly teaches (column 3, lines 42 through 44) the addition of other materials to act as binders and reinforcement in flexible graphite packing rings. The circumstance that Schnitzler addresses a so-called "mold packing" simply does not detract from the obviousness of the claimed invention based upon the combined applied teachings. For these reasons, we conclude, clearly without recourse to appellant's disclosure, that the Case and Schnitzler patents themselves are a sound and appropriate basis for making the determination, as the examiner did, that the packing of appellant's claim 2 would have been obvious.

In the reply brief (page 3), appellant indicates that Case employs a "lubricating agent" and that such would lead to weak bonding, as compared to high bonding forces produced by the adhesive of the present invention. This argument is simply not persuasive. First, appellant's claim 2 neither precludes a lubricating agent nor specifies what is characterized as "high" bonding forces. Second, appellant fails to recognize that Case explicitly informs those versed in the art that "lubrication" may

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or may not be used, as specific requirements may indicate (column 5, lines 41 through 43).

In summary, this panel of the board has:

affirmed the rejection of claim 2 rejected under 35 U.S.C.
§ 103 as being unpatentable over Ueda in view of Ogino; and

affirmed the further rejection of claim 2 under 35 U.S.C.
§ 103 as being unpatentable over Case in view of Schnitzler.

The decision of the examiner is affirmed.

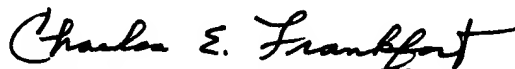
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No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED



IRWIN CHARLES COHEN
Administrative Patent Judge



CHARLES E. FRANKFORT
Administrative Patent Judge



JEFFREY V. NASE
Administrative Patent Judge

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